

Parameter	Unit	Value
Mean body weight	kg	70.0
Mean body height	m	1.75
Mean body mass index	kg/m ²	22.5
Mean body fat percentage	%	15.0
Mean body water percentage	%	60.0
Mean body protein percentage	%	12.0
Mean body ash percentage	%	3.0
Mean body energy density	kJ/kg	17.5
Mean body energy content	kJ	1225
Mean body energy intake	kJ/day	12250
Mean body energy expenditure	kJ/day	12250
Mean body energy balance	kJ/day	0
Mean body energy storage	kJ	0
Mean body energy loss	kJ/day	0
Mean body energy gain	kJ/day	0
Mean body energy deficit	kJ/day	0
Mean body energy surplus	kJ/day	0
Mean body energy efficiency	%	100
Mean body energy conversion	%	100
Mean body energy utilization	%	100
Mean body energy requirement	kJ/day	12250
Mean body energy need	kJ/day	12250
Mean body energy demand	kJ/day	12250
Mean body energy supply	kJ/day	12250
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Mean body energy frameworks	kJ/day	12250
Mean body energy systems	kJ/day	12250
Mean body energy mechanisms	kJ/day	12250
Mean body energy processes	kJ/day	12250

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UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No. 236.7		Total Pages
	First Named Inventor or Application Identifier		
	Herold, J., et al		
	Express Mail Label No.	EL 1495644858 US	

<p>APPLICATION ELEMENTS</p> <p><i>See MPEP chapter 600 concerning utility patent application contents.</i></p>	<p>ADDRESS TO: Assistant Commissioner for Patents Box Patent Application Washington, DC 20231</p>
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NAME	Page Lohr Associates					
	Joseph Page					
ADDRESS	P.O. Box 757					
CITY	La Jolla	STATE	CA	ZIP CODE	92038	
COUNTRY	US	TELEPHONE	619 702 4471		FAX	619 702 4538

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See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$)**355**

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Herold, J., et al
Examiner Name	
Group / Art Unit	
Attorney Docket No.	236.7

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

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FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 760	201 380	Utility filing fee	355
106 310	206 155	Design filing fee	
107 480	207 240	Plant filing fee	
108 760	208 380	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$)**355**

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
11	-20** = 0	X	= 0
1	-3** = 0	X	= 0
Multiple Dependent			= 0

**or number previously paid, if greater; For Reissues, see below

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 78	202 39	Independent claims in excess of 3
104 260	204 130	Multiple dependent claim, if not paid
109 78	209 39	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)**0**

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet.	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 380	216 190	Extension for reply within second month	
117 870	217 435	Extension for reply within third month	
118 1,360	218 680	Extension for reply within fourth month	
128 1,850	228 925	Extension for reply within fifth month	
119 300	219 150	Notice of Appeal	
120 300	220 150	Filing a brief in support of an appeal	
121 260	221 130	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,210	241 605	Petition to revive - unintentional	
142 1,210	242 605	Utility issue fee (or reissue)	
143 430	243 215	Design issue fee	
144 580	244 290	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 760	246 380	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 760	249 380	For each additional invention to be examined (37 CFR § 1.129(b))	
Other fee (specify)			
Other fee (specify)			

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)

SUBMITTED BY

Name (Print/Type)	Joseph Page	Registration No. (Attorney/Agent)	35,311	Telephone	619 702 4471
Signature		Date			

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**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)
236.7

Applicant, Patentee, or Identifier: Herold, J., et al

Application or Patent No.: _____

Filed or Issued: Herewith

Title: Eyewear Frame with Recessed Portion

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

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Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

Jeffrey Herold

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR


Signature of inventor

Signature of inventor

Signature of inventor

10-10-00
Date

Date

Date

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)
236.7

Applicant, Patentee, or Identifier: Herold, J., et al

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☐ the application identified above.
☐ the patent identified above.

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Jeffrey Herold

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Signature of inventor

Signature of inventor

Signature of inventor

Date

Date

Date

In the United States Patent and Trademark Office

Applicants Jeffrey Herold and Brian Tostado

5 Title: Eyewear Frame with Recessed Portion

Specification for a Letters Patent

BACKGROUND OF THE INVENTION

10

Field

The field of the inventions described herefollowing may best be characterized as eyewear for protection of eyes from the sun and more specifically eyewear having high quality lenses with a flip-up feature.

15

Prior Art

Eyewear design, and in particular sunglasses type eyewear, receives considerable attention with regard to improvements and perfection. This may be due to the sensitive nature of human vision and strong need for clear vision in performance of daily activity including sports.

20

Even casual observers will recall a great plurality of sunglasses types each being configured with various function in mind. One type of sunglasses made particularly popular by professional athletes includes those commonly and herein known as 'flip-up' type sunglasses. A flip-up sunglasses may typically have darken lenses in a frame which pivots from a first position in front of a user's eyes to a second position which leaves the eyes with a view clear of the lenses. These are very popular with baseball players who are often charged with having to look into shadows at one instant while having to look into direct sunlight at another. Without entirely removing sunglasses from ones face, a player can quickly 'flip' lenses into or out of a view path in agreement with particular view conditions.

25

30

In some versions, flip-up sunglasses are arranged to be coupled to and cooperate with conventional eyeglasses having optically powered lenses. For example, inventor Russel T. Hall puts forth a design of flip-up sunglasses which have a clip on mechanism which couples the sunglasses to normal eyeglasses. There are many alternative versions in the art; some with particularly interesting features are described below. Indeed most systems are arranged as sunglasses made to cooperate with conventional eyeglasses.

However, it is important to note that a completely different class of removable sunglasses exists where there is no powered optical lenses. Rather, there is a darkened lens or lens set which may be easily moved out of the user's view path to leave only clear space between a user's eyes and the scene being viewed. One type of such system is illustrated by very novel design and invention taught in U.S. Patent 5,719,655 assigned to Nike, Inc. of Beaverton, Oregon. A lens held by a frame without traditional temples is arranged with complementary magnetic element pairs which may be fastened to a user's head via adhesives. To remove the sunglasses for a clear view, a user simply breaks the magnetic bond between magnet pairs.

Another feature of flip-up sunglasses important to users of such devices is aesthetic appearance with regard to concealing hinging apparatus. Hinges which are readily visible tend to make glasses look bulky and clumsy. Accordingly, it is important to provide functional designs which respect desirable aesthetic properties of eyewear in commercial versions of sunglasses. The patented design of Shelton et al for "Eyeglasses With Flip-Up Lenses" presented as U.S. Patent D294,950 shows one particularly neat way of combining a hinge with a glasses frame.

Where sunglasses lenses are to be combined with corrective eyeglasses, additional inventive arrangements and designs have been advanced. Of particular interest, "A Detachable Sunglasses with Magnets" is presented in U.S. Patent 5,642,177 assigned to Sunreeve Company of Japan. These glasses include a sunglasses type lens set which may be coupled to a conventional corrective lens set via magnetic elements. When it is desirable to wear corrective lenses without darkened lenses, the sunglasses portion is removed, folded and placed in a convenient case. Although the sunglasses portion is provided a foldable mechanism, this arrangement is not easily used in sporting events which require one to switch the sunglasses quickly and repeatedly in a short period of

time. In addition, since the sunglasses portion is totally removable from its mate, there is potential for complete separation and inadvertent loss.

A similar and very clever design which utilizes magnets is illustrated by U.S. Patent 6,053,611. Again, sunglasses lenses are removable from corrective lenses. While
5 in place, the sunglasses lenses are held by magnetic forces provided by magnets in the bridge portion of the convention glasses frames.

A second and similar invention taught by the same teacher Mr. Ku of Taiwan is presented as U.S. Patent 5,975,691. This arrangement includes magnetic elements on hinged pieces which allow magnets to become better aligned and coupled with one
10 another. In this manner, preferred coupling is achieved between the removable sunglasses element and the primary eyewear frame.

Finally, an interesting arrangement of a flip-up sunglasses with a magnetic element is presented as the invention of U.S. patent 4,196,981 granted April 8, 1980. In this arrangement of sunglasses without corrective lenses, a magnetic element is
15 configured as the core of a two part hinge. The second portion of the two part hinge is made of ferrous material which is highly affected by magnetic fields produced by the magnet. Although the arrangement is a curious one, it remains one without explanation as to how the magnetic arrangement tends to operate to cause the outcome desired. Experts in magnetics may challenge the notion that the magnetic arrangement tends to
20 hold the lens frame in either of its two terminal positions or in any position therebetween.

In general, flip-up lenses of the art tend to suffer additional problems. Typically, a flip-up lens arrangement relies on a plurality of détentes arranged in conjunction with a hinge to hold a lens or lenses in a flipped-up position and sometimes in a down position. With arrangements like these, a user has to push the lens past the détente and into a
25 position where the lens to be held.

In other versions, a mechanical interlocking clip is used to hold a flip-up lens to a conventional pair of corrective eyeglasses. These clips are sometimes difficult to operate in particular they may be difficult to release as they tend to be quite small and fragile.

Notwithstanding, very novel apparatus have been discovered which may be
30 characterized as eyewear, particularly to flip-up sunglasses having a magnetic seating feature. While the systems and inventions of the art are designed to achieve particular

goals and objectives, some of those being no less than remarkable, these inventions have limitations which prevent their use in new ways now possible. These inventions of the art are not used and cannot be used to realize the advantages and objectives of the present invention.

5

SUMMARY OF THE INVENTION

Comes now, Jeffrey C. Herold, Brian Tostado, and Satoshi Haneda with inventions of sunglasses type eyewear including devices having a spring loaded flip-up tinted lens portion with a magnetic holding mechanism.

10 Apparatus of the present inventions include a frame fashioned as eyewear with conventional temple elements and a nose bridge. However, optically corrective lenses may be omitted. A flip-up portion including tinted lenses is arranged and coupled to the frame in a special manner. The coupling includes a spring loaded hinge whereby the spring applies a force to the flip-up portion motivating it to rotate to a flipped-up position.

15 In addition, the coupling includes a magnetic seating means. When the flip-up portion is pushed into a down position, magnets on the frame and flip-up portions make contact and cause the flip-up portion to remain seated in the down position. A user only has to break the contact between magnets to release the flip-up portion. This allows one to apply slight pressure anywhere on the flip-up member to cause it to release and advance to a

20 flipped-up position. The combination of a spring loaded element with a magnetic seat in flip-up eyewear is unique and described in detail herefollowing.

Objectives of the Invention

25 It is a primary object of the invention to provide novel eyewear having high performance flip-up features.

It is an object of the invention to provide sunglasses eyewear having a magnetic seat.

It is an object of the invention to provide flip-up eyewear with a spring loaded hinge and a magnetic seat.

30 A better understanding can be had with reference to detailed description of preferred embodiments and with reference to appended drawings. Embodiments

presented are particular ways to realize the invention and are not inclusive of all ways possible. Therefore, there may exist embodiments that do not deviate from the spirit and scope of this disclosure as set forth by the claims, but do not appear here as specific examples. It will be appreciated that a great plurality of alternative versions are possible.

5

BRIEF DESCRIPTION OF THE DRAWING FIGURES

These and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, appended claims and drawings where:

10 Figure 1 is a perspective view of eyewear of the inventions;

Figure 2 is a top-down view of the two major members of apparatus of the inventions;

Figure 3 illustrates a top-down view of an alternative version of two major members of apparatus of the inventions;

15 Figure 4 shows a flip-up member in an up terminal position; and

Figure 5 is a straight on front view to illustrate a well hidden frame member.

PREFERRED EMBODIMENTS OF THE INVENTION

20 In accordance with each of the preferred embodiments of the invention, there is provided sunglasses eyewear apparatus having a flip-up feature with a magnetic seat. It will be appreciated that each of the embodiments described may include an apparatus that an apparatus of one preferred embodiment may be different than an apparatus of another embodiment.

25 Apparatus of the inventions are primarily comprised of two major portions. A first portion is herein known as a 'frame' member. A second portion is herein known as a 'flip-up' member. The frame member is connected to and coupled with the flip-up member by way of a hinge or hinges whereby the flip-up member may be moved from the frame member in a rotational sense. In preferred versions, the hinge is loaded with a spring which applies a force on the flip-up member which encourages it to rotate into a
30 'flipped-up' position or an up terminal position. To maintain the flip-up member in a down terminal position, a mechanism is arranged to work against the spring forces. A

magnet or magnets is/are provided to hold the flip-up member to the frame while the flip-up member is in partial contact with the frame member. When contact is broken, even by a small amount, the flip-up portion moves under influence of the spring to an up terminal position and is held there out of the user's optical view path.

5 The inventions will be better understood with reference to the drawings and in particular to Figure 1 which illustrates a perspective view of eyewear of the inventions. A flip-up member is comprised of a shaded lens 1 contained and held within a lens periphery support 2 which is constructed of metallic material. An identical lens and support is connected to the first by way of a bridge element 3. A frame member is
10 comprised of a similar bridge 4, cross elements 5, and temple elements 6. The flip-up member is shown in the drawing is a down terminal position and closely coupled to the frame member. Because the profiles of the flip-up member and frame member are quite similar, it is difficult to perceive the apparatus as being two discrete members and will appear to be only one. This is particularly true in a front-on view.

15 Figure 2 is a top down view which allows one to appreciate the profile of the frame member and the flip-up member which form a mating pair. The mating pair allow the two members to be coupled in very close proximity to reduce the bulk and cross section. This is particularly well achieved in view of the recessed portion which accommodates a hinge. Flip-up member 21 having a bridge 22 sets tightly against frame
20 member 23 which includes the recessed portion. A hinge is formed between the frame member and the flip-up member by way of receiving tabs 24 and cylinder 25. A pin (not shown) finally couples these elements to form an hinge in a common manner.

 Figure 3 shows a special version sometimes known as a 'wrap-around' eyewear. In this version, a flip-up member 31 includes a bridge 32. Frame member 33 has
25 receiving tabs similar to the prior version, however the recessed portion is asymmetric. A recessed is formed by the curved portion 35 of the frame on a first side but a second side is omitted. The wrap style of the frame permits this omission at 36 as the frame is preferable formed to be drawn back towards the temple. Thus, in accordance with the invention, a recess to conceal a hinge may be formed in a more traditional style eyewear
30 and it may be formed as shown in wrap-style eyewear as well.

Figure 4 illustrates rotational motion of a flip-up member coupled to a frame member about a rotational axis. Sunglasses lens 41 held in support 42 is rotatably coupled to frame cross element 43. Careful examination of the figure shows that the bridge 44 of the flip-up member moves away 45 from the bridge of the frame member as the flip-up member is rotated upwardly towards an up terminal position. Thus, Figure 4 illustrates a flip-up member making a transition from a down terminal position to an up terminal position; the flip-up member shown between those positions.

One important aspect of the invention is to provide eyewear which is attractive in appearance. Accordingly, it is useful to hide elements of the frame and flip-up members or to make them appear as a single piece. This can be more readily appreciated from a straight on view shown in Figure 5. Lens 51 and support 52 entirely hide the frame member which sets behind the flip-up member. It is easy to see that the bridge 53 of the flip-up member and the bridge of the frame member appear as a single bridge. Similarly, the lens peripheral support element 52 is shaped in a fashion to cooperate with the frame cross member 54 whereby it is completely covered in a front-on view as the frame lies behind the flip-up member while it is in a down terminal position, i.e. a seated position. Magnets, magnets sets, or magnets pairs are also positioned where they cannot be seen behind the lenses.

The examples above are directed to specific embodiments which illustrate preferred versions of devices and methods of the invention. In the interests of completeness, a more general description of devices and the elements of which they are comprised as well as methods and the steps of which they are comprised is presented herefollowing.

One will now fully appreciate how sunglasses type eyewear having a spring loaded hinge and magnetic seat make a useful and valuable apparatus. Although the present invention has been described in considerable detail with clear and concise language and with reference to certain preferred versions thereof including the best mode anticipated by the inventor, other versions are possible. Therefore, the spirit and scope of the invention should not be limited by the description of the preferred versions contained therein, but rather by the claims appended hereto.

In the United States Patent and Trademark Office

Applicant Jeffrey Herold and Brian Tostado

Title: Eyewear Frame with Recessed Portion

Claims

What is claimed is:

- 1) Apparatus arranged as eyewear comprising a flip-up member coupled to a frame member about a pivot axis whereby said flip-up member freely rotates from an up terminal position to a down terminal position, said flip-up member being held in the down terminal position to said frame member by magnetic forces, said frame member including a recessed portion to accommodate said pivot axis whereby the frame member and flip-up member form a mating pair.
- 2) Apparatus of claim 1, comprising a hinge coupling between said frame member and said flip-up member, said hinge coupling being mechanically loaded by a spring.
- 3) Apparatus of claim 2, said spring being arranged and biased to advance the flip-up member towards the up terminal position.
- 4) Apparatus of claim 3, said frame member being further comprised of at least one magnet element arranged to hold said flip-up member against the force of the spring.
- 5) Apparatus of claim 1, said mating pair form a wrap style frame set whereby the general contour of the apparatus approximates that of a human face.

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In the United States Patent and Trademark Office

Applicant Jeffrey Herold and Brian Tostado

Title: Eyewear Frame with Recessed Portion

Abstract

Eyewear characterized as flip-up sunglasses include a combination of a spring loaded hinge and a magnetic seat. The spring loaded hinge relieves a user the task of properly placing a flip-up portion in a holding mechanism. In combination with the spring, the magnetic seat allows the flip-up lenses to be held against the spring force and provides a simple release action which may be quickly accomplished by merely breaking a magnetic contact bond. As such, the action of flipping up and flipping down a sunglasses lens or lenses becomes comfortable and simple. In addition, a specially arranged recessed lens frame portion accommodates a hinge whereby flip-up portion and the frame portion together form a seat whereby the frame and flip-up portions are closely coupled. The glasses are particularly useful for users who frequently switch between looking into shadows and lighted areas which would otherwise require removing sunglasses and replacing them.

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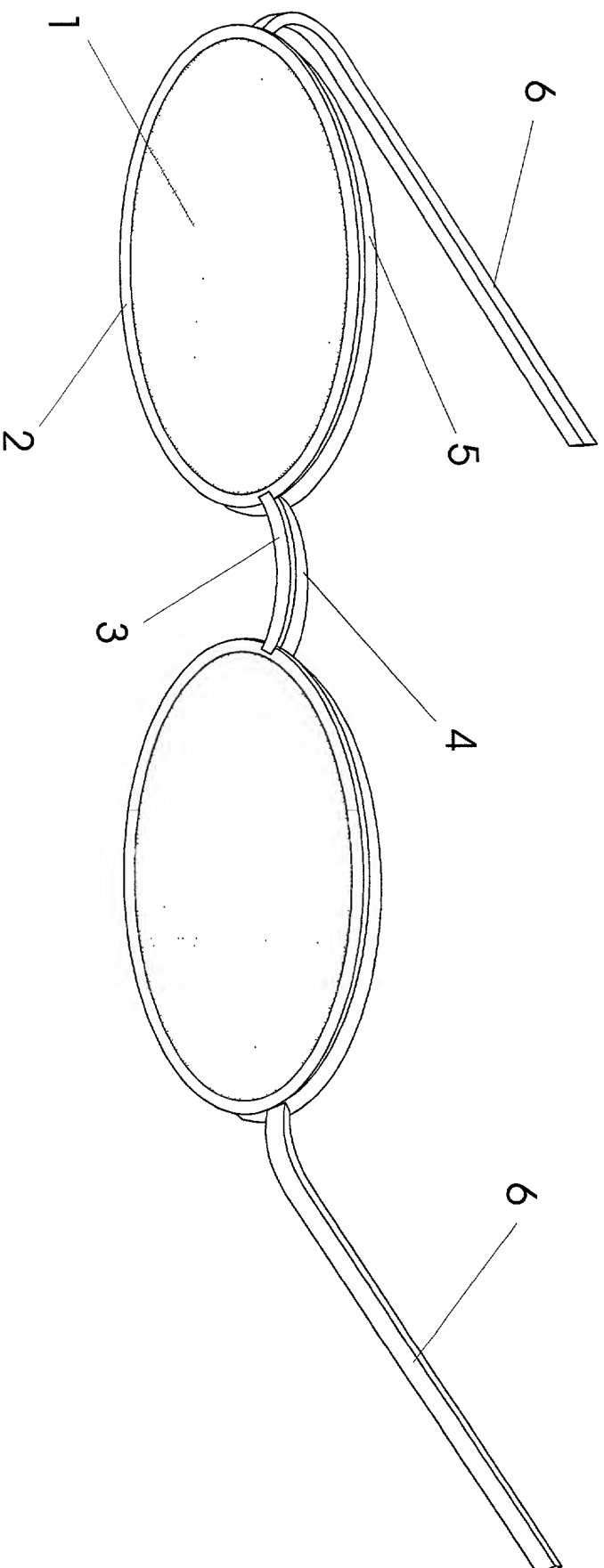


Fig. 1

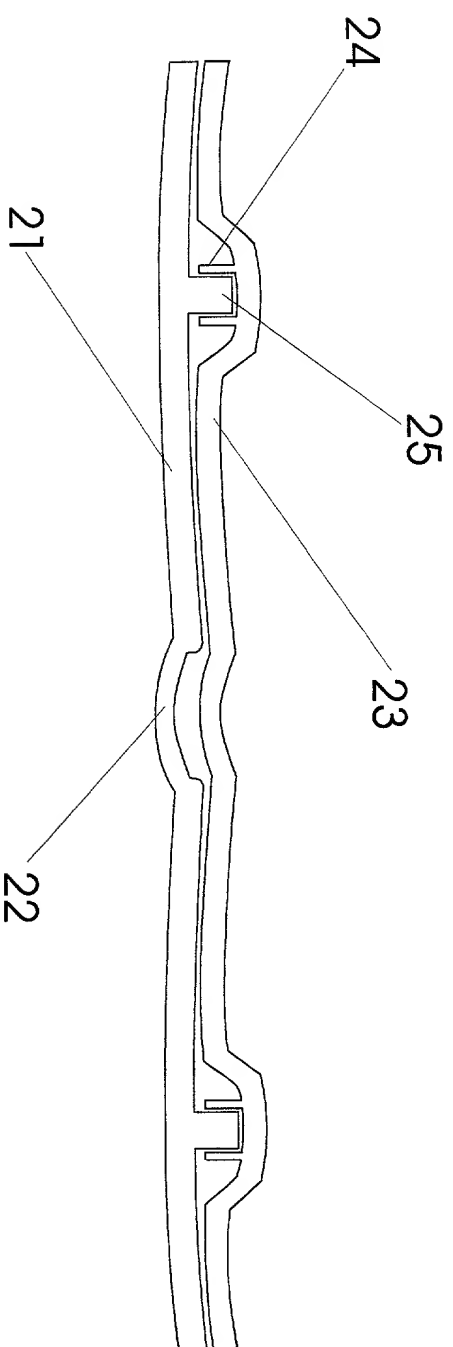


Fig. 2

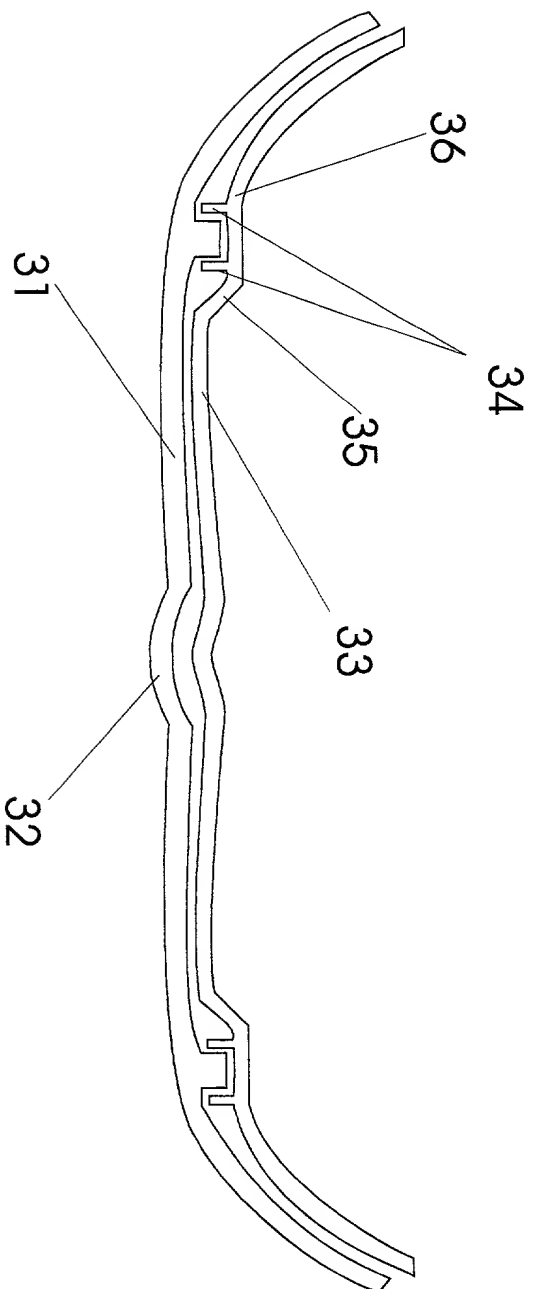


Fig. 3

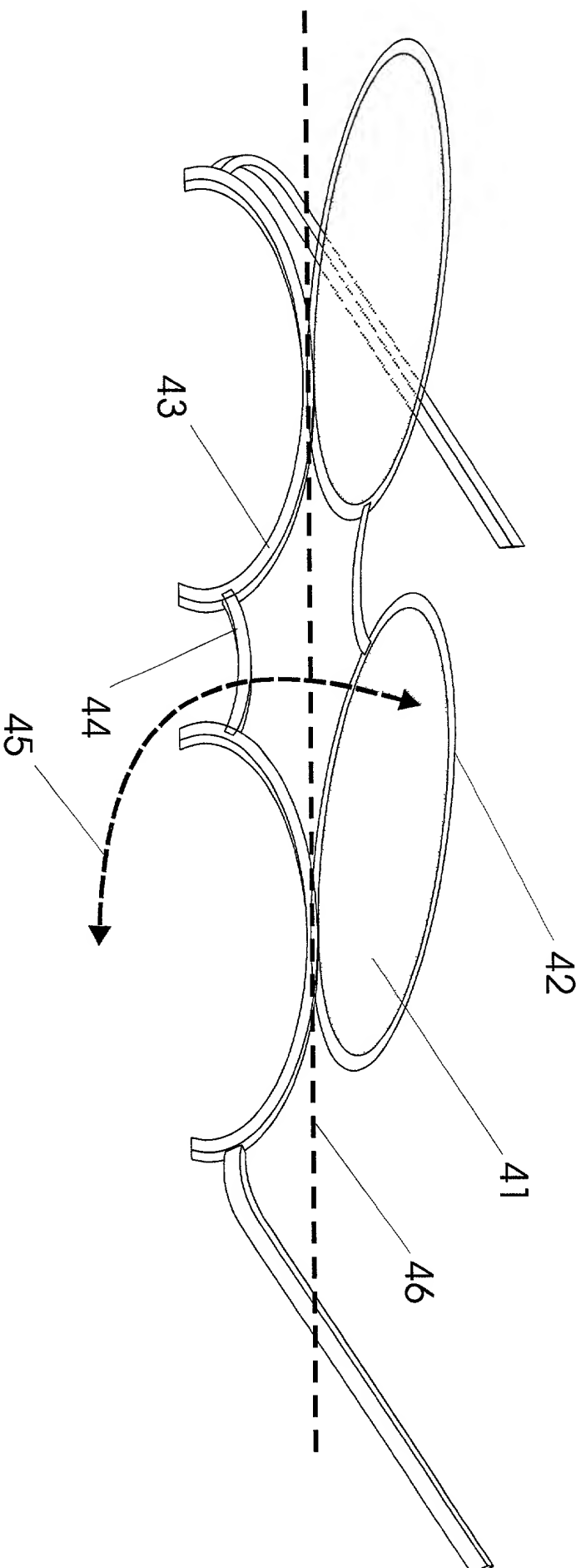


Fig. 4

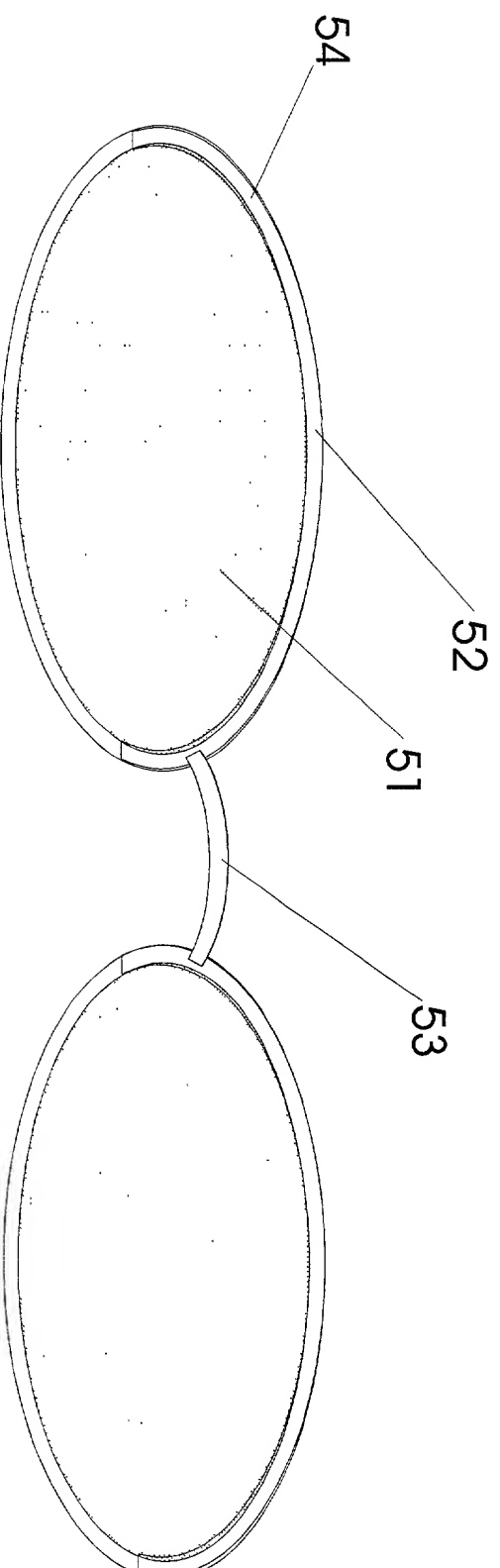



Fig. 5

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	First Named Inventor	Herold, J.
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	Application Number	/
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	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Eyewear Frame with Recessed Portion

the specification of which
☒ is attached hereto
OR
☐ was filed on (MM/DD/YYYY) [] as United States Application Number or PCT International Application Number [] and was amended on (MM/DD/YYYY) [] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

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Name	Page Lohr Associates				
Address	P.O. Box 757				
Address					
City	La Jolla	State	CA	ZIP	92038
Country	US	Telephone	619 702 4471	Fax	619 702 4538

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:		<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))		Family Name or Surname			
Jeffrey C.		Herold			
Inventor's Signature				Date	10-10-00
Residence: City	Huntington Bch	State	CA	Country	US
Post Office Address	17811 Jamestown Ln				
Post Office Address					
City	Huntington	State	CA	ZIP	92647
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Eyewear Frame with Recessed Portion

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Name	Page Lohr Associates				
Address	P.O. Box 757				
Address					
City	La Jolla	State	CA	ZIP	92038
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Jeffrey C.	Herold

Inventor's Signature				Date	
Residence: City	Huntington Bch	State	CA	Country	US
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Page 1 of 2

Name of Additional Joint Inventor, if any:

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Given Name (first and middle [if any])

Family Name or Surname

Brian

Tostado

Inventor's
Signature

Date

Residence: City

Irvine

State

CA

Country

US

Citizenship

US

Post Office Address

1929 Main Street 105B

Post Office Address

City

Irvine

State

CA

ZIP

92614

Country

US

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])

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Inventor's
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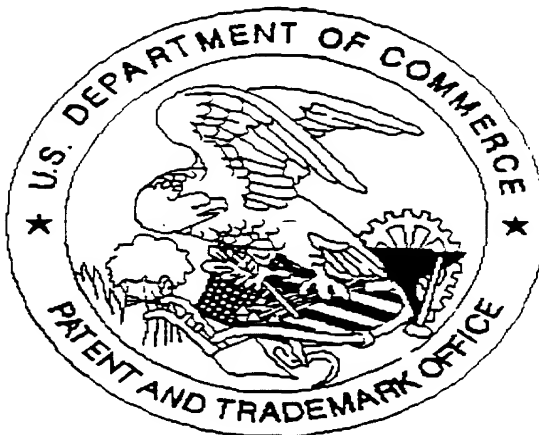
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